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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,089	12/05/2003	Xiaoyuan Gu	L7725.03109	7304

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EXAMINER	
CEHIC, KENAN	
ART UNIT	PAPER NUMBER
2609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,089	GU ET AL.	
	Examiner	Art Unit	
	Kenan Cehic	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *4-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/29/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of the terms:

"said" in line 8 of the abstract should be avoided.

Correction is required. See MPEP § 608.01(b).

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

3. The disclosure is objected to because of the following informalities:

The specification does not have the recommended sections.

Appropriate correction is required.

Arrangement of the Specification

4. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

5. Claims 4-33 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 4-33. See MPEP § 608.01(n). Accordingly, the claims 4-33 have not been further treated on the merits.

6. Claim 1-3 objected to because of the following informalities:

For claim 1, the claim limitation "the available session bandwidth" is the first occurrence. It is suggested to applicant to change this to –an available session bandwidth --.

For claim 1, the claim limitation "the session" is the first occurrence. It is suggested to applicant to change this to –a session--.

Claims 2 and 3 are objected since they depend on claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1-3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "said context" in line 9. There is insufficient antecedent basis for this limitation in the claim. It is not known exactly which context the applicant if referring to.

Claim 2 and 3 are rejected since they depend on claim 1.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 1-3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosure of Komandur et al. (US 2004/0047290 A1) in view of the Tourunen et al (US 2003/0007512 A1)

For claim 1, Komandur et al. teaches media data transmission (see section 0060 lines 1-6), which uses Real-time Transport Protocol (RTP) and Real-time Control Protocol (RTCP) (see section 0041 lines 12-14), employed particularly in real-time multimedia data delivery (see section 00441 lines 12-14, RTP protocol is the standard for streaming real-time multimedia over IP in packets) in an Internet protocol (IP) network (see section 0052; the network uses IP), within the allocated fractions of the available session bandwidth (see section 0026 lines 8-11; RTCP messages are control traffic and they are allotted only a small fraction of the bandwith).

However, Komandur et al. does not specifically teach using explicit context parameters for control traffic. Tourunen et al from the same or similar field teaches a method for the compression of a control traffic (see section 0019 and 0020 , compression of packet header , which controls delivery of packets) in media data transmission (see section 0023 line 8-10), wherein the method comprises the steps of: initialising the context of control

traffic flow (see section 0010, 0019-0021, the context is generated and transmitted which identifies the data packet flow) by initially transmitting context parameters (see section 0010 and 0029, context identifiers are sent; see also section 0028 lines 11-15, context for any type of packet is transmitted before it is sent out) and updating said context (see section 0023 line 15-19, the context is updated) during the session if necessary (see section 0022 lines 1-15, change of condition happen thus updated is needed) the using compressed control packets (see section 0022 lines 15-19, the context updated it sent via FO packet, whose header is compressed).

For claim 2, Tourunen et al teaches wherein the context parameter are categorized into static context parameters and dynamic context parameters (see section 0020 line 9-15).

For claim 3, Tourunen et al teaches the step of omitting a-priori known context parameter (see section 0023 15-19, FO data packet sends information about context update).

Thus it would have been obvious to a person of ordinary skill at the time the invention was made to add the feature of context parameters to compress control traffic packets (like RTCP packets) into the communication system of Komandur et al. One could have implemented the ROHC compression of control packet headers into the communication system as taught by Komandur et al. The algorithm could be implement via an additionally/existing embedded microprocessor in the wireless content switch as taught by Komandur et al. This processor could have also implement the function of only sending the context updates. The motivation for claim 1-3 is that compression of any type of packets saves bandwidth/storage space, which in turn increases available bandwidth. The additional motivation for claim 2 is that one can differentiate between

information that stay the same and the ones that a variable. The additional motivation for claim 3 is to update the state of the compressor/decompressor.

13. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosure of Komandur et al. (US 2004/0047290 A1) in view of Leahy et al. (US 2007/0050716 A1)..

For claim 1, Komandur discloses a method for the compression of a control traffic in media data transmission (see section 0060 lines 1-6), which uses Real-time Transport Protocol (RTP) and Real-time Control Protocol (RTCP) (see section 0041 lines 12-14), employed particularly in real-time multimedia data delivery (see section 00441 lines 12-14, RTP protocol is the standard for streaming real-time multimedia over IP in packets) in an Internet protocol (IP) network (see section 0052; the network uses IP), within the allocated fractions of the available session bandwidth (see section 0026 lines 8-11; RTCP messages are control traffic and they are allotted only a small fraction of the bandwith) wherein the method comprises the steps of:

initialising the context of control traffic flow (see section 0060; the content switch provides specific information of the content in order to reduce report message overhead; see section 0059 lines 1-11, the analysis of section 0060 is used during initialization) by initially transmitting context parameters (see section 0060; the content switch provides specific information of the content in order to reduce report message overhead) and updating said context during the session if necessary (see section 0060 lines 1-11, state is updated after consequential analysis) the using control packets (see section 0061, RTCP protocol is used ; see section 0026 lines 8-11, RTCP sends messages via packets).

Komandur et al. does not teach that the control packets are compressed. Leahy et al from the same or similar field of endeavor teaches control packets that are compressed (see section 0110 lines 1-4; compressed control packets are sent). Thus it would have been obvious to a person of ordinary skill to apply the compressed control packets as taught by Leahy et al to the control packets as taught by Komandur et al. One would have been able to implement a compression algorithm via an additionally/existing embedded microprocessor in the wireless content switch as taught by Komandur et al. The motivation is that compression of any type of packets saves bandwidth/storage space, which in turn increases available bandwidth.

14. Claim 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the disclosure of Komandur et al. (US 2004/0047290 A1) and Leahy et al. (US 2007/0050716 A1) as applied to claim 1 above, and further in view of Tourunen et al (US 2003/0007512 A1).

For claim 2 and 3, Komandur et al. and Leahy et al. discloses all the claimed invention as described in paragraph 13.

However, Komandur does differentiate between static and dynamic parameters and prior known parameters as recited in claim 2 and 3.

For claim 2, Tourunen et al. from the same or similar field of endeavor teaches wherein the context parameter are categorized into static context parameters and dynamic context parameters (see section 0020 line 9-15).

For claim 3, Tourunen et al teaches the step of omitting a-priori known context parameter (see section 0023 15-19, FO data packet sends information about context update).

Thus it would have been obvious to a person of ordinary skill at the time the invention was made to add the feature of context parameters to compress control traffic packets (like RTCP packets) into the communication system of Komandur et al and Leahy et al. One could have implemented the ROHC compression of control packet headers into the communication system as taught by Komandur et al. and Leahy et al. The algorithm could be implement via an additionally/existing embedded microprocessor in the wireless content switch as taught by Komandur et al. and Leahy et al. This processor could have also implement the function of only sending the context updates. The motivation for claim 1-3 is that compression of any type of packets saves bandwidth/storage space, which in turn increases available bandwidth. The additional motivation for claim 2 is that one can differentiate between information that stay the same and the ones that a variable. The additional motivation for claim 3 is to update the state of the compressor/decompressor.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-2004/0066779 A1	04-2004	Barrack et al.
US-2004/0120345 A1	06-2004	Yamaguchi et al.
US-6,967,964 B1	11-2005	Svanbro et al.
US-2006/0291466 A1	12-2006	May, William B. JR.

The above are referenced to show method/systems of control mechanisms.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

DANG T. TON
SUPERVISORY PATENT EXAMINER